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June 9, 2004

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 1634

Re: U.S. Utility Patent Application
Appl. No. 10/655,579; Filed: September 5, 2003
For: **Compositions and Methods for Synthesizing Nucleic Acids**
Inventors: PARK *et al.*
Our Ref: 0942.5580002/RWE/BJD/JKM

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. List of cited references on Form PTO-1449 (19 sheets);
3. A copy of each reference cited on Form PTO-1449 (80 documents: AL1-AP1, AR1-AT1, AL2-AP2, AR2-AT2, AL3-AP3, AR3-AT3, AL4-AP4, AR4-AT4, AL5-AN5 and AR5-AT19); and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
June 9, 2004
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Brian J. Del Buono", with a stylized flourish at the end.

Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

BJD/JKM:bac
Enclosures

269304_1.DOC



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Park *et al.*

Appl. No. 10/655,579

Filed: September 5, 2003

For: **Compositions and Methods for
Synthesizing Nucleic Acids**

Confirmation No. 6419

Art Unit: 1634

Examiner: *To be assigned*

Atty. Docket: 0942.5580002/BJD/JKM

Information Disclosure Statement

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450
Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Copies of documents **AA1-AK1**, **AA2-AK2** and **AA3-AD3** are not provided in accordance with the U.S. Patent and Trademark Office pre-OG notice of July 11, 2003, which states "[t]he Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003."

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following, in regards to non-English language document **AL4** cited on Form PTO 1449:

Document **AL4**, PCT Patent Publication No. WO 93/01288, is in the German language. An English language abstract of document **AL4** appears on the front page of the document.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached Form PTO-1449 based on information presently available to the

undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

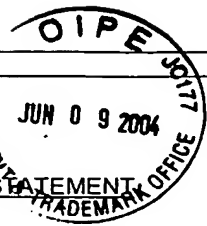
Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Brian J. Del Buono", with a stylized flourish at the end.

Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

Date: June 9, 2004
1100 New York Avenue, N.W.
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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
0942.5580002/BJD/JKMAPPLICATION NO.
10/655,579FIRST NAMED INVENTOR
Park *et al.*FILING DATE
September 5, 2003ART UNIT
1634

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	4,683,195	07/28/1987	Mullis <i>et al.</i>			02/07/1986
	AB1	4,683,202	07/28/1987	Mullis			10/25/1985
	AC1	4,800,159	01/24/1989	Mullis <i>et al.</i>			12/17/1986
	AD1	4,889,818	12/26/1989	Gelfand <i>et al.</i>			06/17/1987
	AE1	4,965,188	10/23/1990	Mullis <i>et al.</i>			06/17/1987
	AF1	5,047,342	09/10/1991	Chatterjee			08/10/1989
	AG1	5,079,352	01/07/1992	Gelfand <i>et al.</i>			05/15/1990
	AH1	5,223,409	06/29/1993	Ladner <i>et al.</i>			03/01/1991
	AI1	5,244,797	09/14/1993	Kotewicz <i>et al.</i>			03/18/1991
	AJ1	5,270,179	12/14/1993	Chatterjee			01/28/1992
	AK1	5,338,671	08/16/1994	Scalice <i>et al.</i>			10/07/1992

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	EP 0 329 822	06/08/1994	Europe			Yes No
	AM1	EP 0 684 315	06/26/2002	Europe			Yes No
	AN1	WO 89/06691	07/27/1989	WIPO			Yes No
	AO1	WO 90/02809	03/22/1990	WIPO			Yes No
	AP1	WO 91/09944	07/11/1991	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	1	Alani, E., <i>et al.</i> , "Characterization of DNA-binding and Strand-exchange Stimulation Properties of γ -RPA, a Yeast Single-strand-DNA-binding Protein," <i>J. Mol. Biol.</i> 227:54-71, Academic Press Ltd. (1992).
	AS	1	Barbas III, C.F., <i>et al.</i> , "Assembly of combinatorial antibody libraries on phage surfaces: The gene III site," <i>Proc. Natl. Acad. Sci.</i> 88:7978-7982, National Academy of Sciences (1991).
	AT	1	Barnes, W.M., "The fidelity of <i>Taq</i> polymerase catalyzing PCR is improved by an N-terminal deletion," <i>Gene</i> 112:29-35, Elsevier Science B.V. (1992).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0942.5580002/BJD/JKM	APPLICATION NO. 10/655,579
	FIRST NAMED INVENTOR Park <i>et al.</i>	
	FILING DATE September 5, 2003	ART UNIT 1634

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2	5,374,553	12/20/1994	Gelfand <i>et al.</i>			08/13/1990
	AB2	5,409,818	04/25/1995	Davey <i>et al.</i>			06/24/1988
	AC2	5,436,149	07/25/1995	Barnes			02/19/1993
	AD2	5,449,603	09/12/1995	Nielson <i>et al.</i>			10/24/1989
	AE2	5,455,166	10/03/1995	Walker			01/09/1992
	AF2	5,512,462	04/30/1996	Cheng			02/25/1994
	AG2	5,532,600	07/02/1996	Hoshino			10/27/1994
	AH2	5,605,824	02/25/1997	Nielson <i>et al.</i>			06/16/1993
	AI2	5,614,365	03/25/1997	Tabor <i>et al.</i>			11/10/1994
	AJ2	5,646,019	07/08/1997	Nielson <i>et al.</i>			04/07/1994
	AK2	5,587,287	12/24/1996	Scalice <i>et al.</i>			04/07/1994

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2	WO 91/09950	7/11/1991	WIPO			Yes No
	AM2	WO 91/17271	11/14/1991	WIPO			Yes No
	AN2	WO 92/01047	01/23/1992	WIPO			Yes No
	AO2	WO 92/03556	03/05/1992	WIPO			Yes No
	AP2	WO 92/06188	04/16/1992	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	2	Barns, S.M., <i>et al.</i> , "Perspectives on archaeal diversity, thermophily and monophyly from environmental rRNA sequences," <i>Proc. Natl. Acad. Sci.</i> 93:9188-9193, National Academy of Sciences (1996).
	AS	2	Brown, J.P., <i>et al.</i> , "Structural Characterization of Human Melanoma-Associated Antigen p97 with Monoclonal Antibodies," <i>J. Immunol.</i> 127:539-546, American Association of Immunologists (1981).
	AT	2	Brown, J.P., <i>et al.</i> , "Protein Antigens of Normal and Malignant Human Cells Identified by Immunoprecipitation with Monoclonal Antibodies," <i>J. Biol. Chem.</i> 255:4980-4983, American Society of Biological Chemists (1980).

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	FIRST NAMED INVENTOR Park <i>et al.</i>	
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA3	5,605,824	02/25/1997	Nielson <i>et al.</i>			06/16/1993
	AB3	5,773,257	06/30/1998	Nielson <i>et al.</i>			06/06/1995
	AC3	5,972,650	10/26/1999	Yao			06/26/1997
	AD3	6,077,664	06/20/2000	Slater <i>et al.</i>			05/31/1996
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL3	WO 92/06200	04/16/1992	WIPO			Yes No
	AM3	WO 92/09690	06/11/1992	WIPO			Yes No
	AN3	WO 92/15679	09/17/1992	WIPO			Yes No
	AO3	WO 92/18619	10/29/1992	WIPO			Yes No
	AP3	WO 92/20791	11/26/1992	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	3	Chédin, F., <i>et al.</i> , "Novel homologs of replication protein A in Archaea: implications for the evolution of ssDNA-binding proteins," <i>Trends Biochem. Sci.</i> 23:273-277, Elsevier Science (1998).
	AS	3	Chou, Q., "Minimizing deletion mutagenesis artifact during <i>Taq</i> DNA polymerase PCR by <i>E. coli</i> SSB," <i>Nucl. Acids Res.</i> 20:4371, IRL Press (1992).
	AT	3	Chou, Q., <i>et al.</i> , "Prevention of pre-PCR mis-priming and primer dimerization improves low-copy-number amplifications," <i>Nucl. Acids Res.</i> 20:1717-1723, Oxford University Press (1992).

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL4	WO 93/01288	01/21/1993	WIPO			Yes X No
	AM4	WO 94/26766	11/24/1994	WIPO			Yes No
	AN4	WO 96/10640	04/11/1996	WIPO			Yes No
	AO4	WO 97/09451	03/13/1997	WIPO			Yes No
	AP4	WO 98/47912	10/29/1998	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>4</u>	Clackson, T., <i>et al.</i> , "Making antibody fragments using phage display libraries," <i>Nature</i> 352:624-628, Macmillan Ltd. (1991).
AS	<u>4</u>	Cole, S.P.C., <i>et al.</i> , "The EBV-Hybridoma Technique and Its Application to Human Lung Cancer," <i>Monoclonal Antibodies and Cancer Therapy</i> 77-96, Alan R. Liss, Inc. (1985).
AT	<u>4</u>	Dabrowski, S., and Kur, J., "Cloning, Overexpression, and Purification of the Recombinant His-Tagged SSB Protein of <i>Escherichia coli</i> and Use in Polymerase Chain Reaction Amplification," <i>Protein Expr. Purif.</i> 16:96-102, Academic Press (1999).

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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL5	WO 00/52027	09/08/2000	WIPO			Yes No
	AM5	WO 01/02559	01/11/2001	WIPO			Yes No
	AN5	WO 02/19822	03/14/2002	WIPO			Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>5</u>	Ewing, B., <i>et al.</i> , "Base-Calling of Automated Sequencer Traces Using <i>Phred</i> . I. Accuracy Assessment," <i>Genome Res.</i> 8:175-185, Cold Spring Harbor Laboratory Press (1998).
AS	<u>5</u>	Ewing, B., <i>et al.</i> , "Base-Calling of Automated Sequencer Traces Using <i>Phred</i> . II. Error Probabilities," <i>Genome Res.</i> 8:186-194, Cold Spring Harbor Laboratory Press (1998).
AT	<u>5</u>	Flaman, J-M., <i>et al.</i> , "A rapid PCD fidelity assay," <i>Nucl. Acids Res.</i> 22:3259-3260, Oxford University Press (1994).

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	AL						Yes No
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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>6</u>	Fujii, S., <i>et al.</i> , "DNA Replication Errors Produced by the Replicative Apparatus of <i>Escherichia coli</i> " <i>J. Mol. Biol.</i> 289:835-850, Academic Press (1999).
AS	<u>6</u>	Fuchs, P., <i>et al.</i> , "Targeting Recombinant Antibodies to the Surface of <i>Escherichia coli</i> : Fusion to a Peptidoglycan Associated Lipoprotein," <i>Bio/Technology</i> 9:1369-1372, Nature America Inc. (1991).
AT	<u>6</u>	Galfre, G., <i>et al.</i> "Antibodies to major histocompatibility antigens produced by hybrid cell lines," <i>Nature</i> 266:550-552, Macmillan Ltd. (1977).

EXAMINER

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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>Z</u>	Garrard, L.J., <i>et al.</i> , "F _{AB} Assembly and Enrichment in a Monovalent Phage Display System," <i>Bio/Technology</i> 9:1373-1377, Nature America Inc. (1991).
	AS	<u>Z</u>	Gefter, M.L., <i>et al.</i> , "A Simple Method for Polyethylene Glycol-Promoted Hybridization of Mouse Myeloma Cells," <i>Somatic Cell Genet.</i> 3:231-236, Plenum Publishing Corp. (1977).
	AT	<u>Z</u>	Gerard, G.F., <i>et al.</i> , "cDNA Synthesis by Moloney Murine Leukemia Virus RNase H-Minus Reverse Transcriptase Possessing Full DNA Polymerase Activity," <i>FOCUS</i> 14:91-93, Life Technologies, Inc. (1992).

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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	8	Glover, B.P., and McHenry, C.S., "The $\chi\psi$ Subunits of DNA Polymerase III Holoenzyme Bind to Single-stranded DNA-binding Protein (SSB) and Facilitate Replication of an SSB-coated Template," <i>J. Biol. Chem.</i> 273:23476-23484, The American Society for Biochemistry and Molecular Biology, Inc. (1998).
AS	8	Gram, H., <i>et al.</i> , "In vitro selection and affinity maturation of antibodies from a naïve combinatorial immunoglobulin library," <i>Proc. Natl. Acad. Sci.</i> 89:3576-3580, National Academy of Sciences (1992).
AT	8	Griffiths, A.D., <i>et al.</i> , "Human anti-self antibodies with high specificity from phage display libraries," <i>EMBO J.</i> 12:725-734, Oxford University Press (1993).

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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>9</u>	Gubler, U., and Hoffman, B.J., "A simple and very efficient method for generating cDNA libraries," <i>Gene</i> 25:263-269, Elsevier Science (1983).
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	FIRST NAMED INVENTOR Park <i>et al.</i>	
	FILING DATE September 5, 2003	ART UNIT 1634

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	FILING DATE September 5, 2003	ART UNIT 1634

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	AR	<u>13</u>	Kotewicz, M.L., <i>et al.</i> , "Isolation of cloned Moloney murine leukemia virus reverse transcriptase lacking ribonuclease H activity," <i>Nucl. Acids Res.</i> 16:265-277, IRL Press (1988).
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FORM PTO-1449

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0942.5580002/BJD/JKMAPPLICATION NO.
10/655,579FIRST NAMED INVENTOR
Park *et al.*FILING DATE
September 5, 2003ART UNIT
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	AR	<u>18</u>	Stemmer, W.P.C., <i>et al.</i> , "Single-step assembly of a gene and entire plasmid from large numbers of oligodeoxyribonucleotides," <i>Gene</i> 164:49-53, Elsevier Science B.V. (1995).
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